ORALS

High Risk Patients: Diabetes, Heart Failure, Renal Failure, Others (TCTAP A-075 to TCTAP A-078)

TCTAP A-075

Prognostic Significance of Anemia in Patients Undergoing PCI with First and Second Generation DES (Katowice Registry)

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Background: Anemia present prior to PCI is associated with an increased risk of death, myocardial infarction (MI) and bleeding complications in particular in acute coronary syndromes (ACS). Patients with anemia often do not receive recommended by guidelines antithrombotic treatment and drug-eluting stents (DES) because of the increased bleeding risk. Aim of this all-comer Katowice Registry is to compare 1-year outcomes in patients with coronary artery disease (CAD) and anemia treated with PCI with first and second-generation DES.
Methods: We enrolled 1916 consecutive patients (65% males, mean age 63 y) presenting with unstable angina (78%), NSTEMI (15%) and STEMI/LBBB MI (7%) treated either with first (paclitaxel, sirolimus) or second generation (everolimus, zotarolimus, biolimus A9) DES (o-DES 34%; n-DES=66%). Anemia was defined according to WHO [hemoglobin (Hb) level <13g/dL for men and <12g/dL for women]. Incidence of MACCE (death, MI, stroke, repeat-revascularization) at 1-year was a primary end-point of this study and was evaluated by telephone follow-up or data from national ministry of health.
Results: The study population was stratified according to presence of anemia on admission. Anemia was present in 11% of patients (microcytic 11%, normocytic 53%, macrocytic 35%). Patients with anemia were older (67±10 vs. 62±10 years, p<0.001), had diabetes (44% vs. 6%,p=0,02), chronic kidney disease (32% vs. 15%, p<0,001), PAD (17% vs. 10%, p=0,005), carotid disease (10% vs. 5%, p=0,006), history of MI (57% vs. 46%,p=0,002), CABG (31% vs. 19%,p=0,0001), impaired LEF (50 (40-57)% vs. 55 (45-60)%,p=<0,001), higher GRACE score [>140 (75% vs. 53%,p=0,010) and more frequently had bleeding requiring transfusion (3,2% vs. 0,5%, p<0,001). Hospitalization was longer [5 (4-7) vs. 4 (3-6) days,p=0,002]. Patients with anemia had more 3 vessel disease (36,4% vs. 26,1%,p=0,001) and higher SYNTAX [21(12-27) pkt. vs. 14(8-22) pkt. p=0,001)]. Stent thrombosis in culprit vessel was significantly more frequent (1,7% vs. 0,3%, p=0,037). In 1-year F-U there was significantly higher mortality (7,4% vs. 2,9%, p=0,001) than in pts without anemia. In patients treated with o-DES there was a trend to higher rate of CABG during F-U (4,1% vs. 0,7%, p=0,082). Univariate regression showed that anemia was a predictive of death, however in multivariate regression model only eGFR, LVEF and age, but not anemia (HR 1,23 95%CI 0,56-1,91) were independent predictors of death. Despite higher disease burden in patients with anemia 1-year follow-up showed that there was no difference in composite MACCE (death, MI, stroke, repeat-revascularization) in comparison to patients with normal Hb (p=0,60, Kaplan-Meyer). There was also no difference according to type of DES (first vs. new generation).
Conclusion: Anemia is relatively frequent (11%) in patients with CAD and associated with higher 1-year mortality. Despite higher bleeding risk use of DES is safe to the same extent as in patients without anemia.

TCTAP A-076

Urinary L-FABP Predicts Survival Outcome Before Contrast Agent Administration in Patients with Chronic Kidney Disease

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Background: Preexisting renal insufficiency was independent risk factors for contrast-induced acute kidney injury (CI-AKI). One of the associated predisposing factors for CI-AKI is a propensity for enhanced renal hypoxia. Urinary L-FABP levels correlated well to the level of renal ischemia. Therefore, we believe increased levels of urinary L-FABP relate to the presence of a preexisting renal ischemia in patients undergoing contrast administration. The purpose of the present study was to examine the clinical significance of urinary L-FABP levels before contrast agent administration in patients with chronic kidney disease (CKD).
Methods: We performed a retrospective study of 215 patients with CKD who underwent elective catheterization [serum creatinine (Cr) ≥1.1mg /dl]. Serum Cr and L-FABP levels were measured immediately before contrast agent administration. Patients were prospectively followed during a median follow-up period of 755 days with the end points of Cardiac Cerebral death. CI-AKI was defined as an increase of 0.3 mg/dl (26.5micromol/l) within 2 days of contrast media exposure.
Results: CI-AKI developed in 22 patients (10.2%). High L-FABP levels group (defined as more than 24.5 microg/g Cr) was 45 patients and CI-AKI in high L-FABP levels group developed in 11patients. A total of 18 cardiac cerebral deaths occurred during a follow-up period and survival outcome tended to be worse high L-FABP levels group. (15.9% vs 6.5% P value: 0.045) Kaplan-Meier analysis clearly demonstrated that patients with high L-FABP levels group were higher rate of cardiac cerebral deaths than those with low L-FABP levels group. (Log rank test:P value: 0.0259).
Conclusion: Urinary L-FABP provides an important information for predicting CI-AKI and survival outcome before contrast agent administration. These data indicate that urinary L-FABP level is a novel promising marker to provide useful prognostic information for clinical outcomes in patients with chronic kidney disease.

TCTAP A-077

IVUS Guided Minimum Contrast PCI for CKD Patients

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Background: Estimated safety dose of contrast media for chronic kidney disease(CKD) patients is computed by the following formula,bodyweight x5/Serum creatinine(SCr). To reduce the account of contrast media, IVUS guidance throughout the procedure, would be effective.
Methods: To clarify the efficacy of IVUS guided minimum contrast PCI(MC-PCI) for CKD patients. From January 2008 to September 2013, consecutive 54 patients of 73 lesions were treated with MC-PCI. Patients with SCr→1.5mg/dl who required elective PCI based on diagnostic angiogram were enrolled in this study. Hemodialysis patients were excluded.During PCI, operators manipulated wires without contrast referring the previous cineangiogram and checked the IVUS. PCI was performed according with IVUS findings alone. At the end of the procedure, angiogram was done with minimal account of contrast media. Contrast induced nephropathy CIN was diagnosed if SCr level was increased by 0.5 mg/dl within 48 hours.
Results: 45 lesions were treated with stent and 28 lesions were treated with balloon. Used contrast dose at PCI was significantly lower than that of diagnostic CAG (13.8ml±9.2ml VS 39.6±27.3ml P<0.0001). One case was treated with contrastfree procedure. Used contrast dose at PCI was 9.3±6.5% of estimated safety dose. Though, SCr after 48 hrs showed no increase compared to that of the base line (Pre vs Post 2.1±0.6 vs 2.1±0.8 P=0.438). CIN was found in 2 cases(4%).
Conclusion: IVUS guided MC-PCI minimize CIN in CKD patients. It is comparable results to that of patients normal renal function.

TCTAP A-078

Serum Homocysteine Level Influences on Risk Factor and Severity of Coronary Artery Disease in Young Patients

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Background: To explore the association between serum homocysteine (Hcy) level and risk Factor in young patients with coronary heart disease.
Methods: A total of 1455 coronary heart disease patients [(50±2.4) years, 868male] hospitalized in our department between June 2011 and March 2013 were included in this prospective study. Patients were divided into young Coronary heart disease group (age≤40, *n*=455) and Non youth Coronary heart disease group (age>40, *n*=400). Their serum homocysteine was measured by High Performance Liquid Chromatography method.
Results: The serum HCY, TG level of CHD group in young CAD groups were all higher than those of Non youth CAD groups (P<0.01 or P<0.05), the CAD with passed history of hypertension and Type-II diabetes of young CHD groups were all lower than those Non youth group (P<0.01 or P<0.05). The Logistic regression analysis demonstrated that HCY and history of young CAD were all independent risk factors for young CHD patients (P<0.01 or P<0.05), while hypertension and diabetes mellitus were all independent risk factors for Non youth CHD patients (P<0.05).
Conclusion: Higher serum homocysteine is an independent for young CAD patients.

Innovative Devices and Futuristic Therapies (TCTAP A-079 to TCTAP A-080)

TCTAP A-079

Clinical Efficacy and Safety of Bioresorbable Vascular Scaffold in an Unselected Patient Population: A Single Centre Real World Experience

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Background: The novel drug-eluting bioresorbable vascular scaffold (BVS) is a revolutionary treatment option for obstructive coronary artery disease in percutaneous